Technical Visit to Phoenix Industries Sdn Bhd

AGRICULTURAL AND FOOD ENGINEERING TECHNICAL DIVISION

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A technical visit by 17 IEM members to PMT-Phoenix Industries Sdn Bhd, Shah Alam, Selangor, on 24 October 2009, was organised by the Agricultural and Food Engineering Technical Division.

The Phoenix range of products was developed in Australia by Pitstock Pty. Ltd. in 1952. In 1963, Boustead Engineering Malaysia was licensed to manufacture and distribute Phoenix fans in Asia. In 1994, Howden Group UK acquired Boustead Engineering's Fan Division and form James Howden (M) Sdn. Bhd. By 2005, PMT Industries Sdn Bhd officially acquired 83% of Phoenix blower, and in 2006, the name was changed to Phoenix Industries Sdn Bhd, which is a wholly owned subsidiary of an established and reputable public listed group, Wah Seong Corporation Bhd. The company's vision is to provide high quality products and services to the palm oil mill industry worldwide. It currently has a combined staff force of 200 people in various localities throughout Peninsular Malaysia, Borneo and Sumatera.

The main product line consists of centrifugal fans, axial fans, dampers and blowers which are used in a wide range of industries including palm oil processing mills, cement plants, chemical plants, rubber gloves industries, dust collector application, paint spraying plants for automobile, building services, air conditioning, ventilation, oven and dryer systems and a variety of other general industries

Classroom briefing on the technical visit

Briefing at the site

View of the factory

Participants at the technical night.

which require centrifugal fans and blowers. These equipmens are supplied throughout Malaysia, Southeast Asia, Latin America and also Africa. Today, there are over 60 experienced and well trained engineers and technicians from the PMT group to ensure the smooth functioning of the business operation and minimal downtime.

Apart from the centrifugal fan which is part of the main product range, the other ranges of industrial centrifugal fans are specially designed for specific purposes. For example, the LF rotor is suitable for handling long shaving and handling air or gases, and is also ideal for abrasive dust handling duties.

The GH rotor, which has the highest efficiency among all the rotors, is designed to handle air which is in either slightly contaminated or in clean. Similar to the design of the LF rotor, the W rotor is suitable for handling all types of air which handles periodic paper and cardboard trim in particular. The AM rotor is designed for handling all types of dry material up to 850°F. Phoenix Industries can also design and build special configurations to suit a client's specifications upon request.

With 25,000sqft of manufacturing area, Phoenix Industries has equipped the plant with a 20 tonne overhead crane, computer aided design with AutoCAD software, CNC-Farley plasma cutter where the iron to fabricate the fans will be cut using this machine while being controlled by an operator. The raw materials used are selected from high quality sources such as cast iron and steel which comply with industry standards. On top of that, the PMT Phoenix Industries plant is completed with HACO – NC shear, IMCAR hydraulic rolls and LVD 150 tonnes press.

After they are built, the products will go through the balancing and vibration test to ensure the quality of the fans are in good condition, and the fans are tested to BS Standard 848: Part 1. Also located in the plant is an in-house paint booth where, after the product is tested, it is painted and sent to the dispatch area. The fans are made by well trained and experienced staff who will dispatch it to the clients after the whole process is complete.

Phoenix Industries is constantly working towards designing and building fans to suit their client's specification and to better serve the needs of the industry. The company foresees growth opportunities both in the local and international market such as in other parts of Southeast Asia and Latin America. The plant visit provided good exposure to young engineers on how to fabricate centrifugal fans and blowers. This activity has encouraged the members to discuss, exchange ideas and gain knowledge on the fabrication and manufacturing of fans, blowers and dampers. ■